

Title (en)

FLOW CELLS UTILIZING SURFACE-ATTACHED STRUCTURES, AND RELATED SYSTEMS AND METHODS

Title (de)

STRÖMUNGSZELLEN MIT OBERFLÄCHENGEBUNDENEN STRUKTUREN SOWIE ZUGEHÖRIGE SYSTEME UND VERFAHREN

Title (fr)

CUVES À CIRCULATION FAISANT INTERVENIR DES STRUCTURES FIXÉES EN SURFACE, ET SYSTÈMES ET PROCÉDÉS ASSOCIÉS

Publication

EP 4252898 A2 20231004 (EN)

Application

EP 23185865 A 20160919

Priority

- EP 16847534 A 20160919
- US 201562220906 P 20150918
- US 2016052463 W 20160919
- US 201662347046 P 20160607

Abstract (en)

A flow cell is provided that includes surface-attached structures in a chamber. The structures are movable in response to a magnetic or electric field. A target extraction or isolation system includes the flow cell and a driver configured for applying a magnetic or electric field to the interior of the flow cell to actuate movement of the structures. The flow cell may be utilized to extract or isolate a target from a sample flowing through the flow cell. Further, a microfluidic system is provided that includes surface-attached structures and a microarray, wherein actuated motion of the surface-attached structures is used to enhance flow, circulation, and/or mixing action for analyte capture on the microarray.

IPC 8 full level

B01F 33/30 (2022.01)

CPC (source: EP US)

B01F 25/43151 (2022.01 - EP US); **B01F 25/431971** (2022.01 - EP); **B01F 33/30** (2022.01 - EP US); **B01F 33/3038** (2022.01 - EP US); **B01L 3/50273** (2013.01 - EP US); **B01L 3/502753** (2013.01 - EP US); **B01L 3/502761** (2013.01 - EP US); **G01N 21/05** (2013.01 - EP US); **G01N 21/631** (2013.01 - US); **G01N 33/54366** (2013.01 - EP US); **B01F 25/431971** (2022.01 - US); **B01L 2200/0668** (2013.01 - EP US); **B01L 2300/0867** (2013.01 - EP US); **B01L 2300/0877** (2013.01 - EP US); **B01L 2300/123** (2013.01 - EP US); **B01L 2400/0415** (2013.01 - US); **B01L 2400/043** (2013.01 - EP US); **B01L 2400/0433** (2013.01 - EP US); **B01L 2400/0442** (2013.01 - EP US); **B01L 2400/0454** (2013.01 - EP US); **B01L 2400/086** (2013.01 - EP US)

Citation (applicant)

- US 5948902 A 19990907 - HONKANEN RICHARD E [US], et al
- US 8586368 B2 20131119 - SUPERFINE RICHARD [US], et al
- US 9238869 B2 20160119 - SUPERFINE RICHARD [US], et al
- WO 2008103430 A2 20080828 - UNIV NORTH CAROLINA [US], et al
- JUDITH ET AL.: "Micro-elastometry on whole blood clots using actuated surface-attached posts (ASAPs)", LAB CHIP, ROYAL SOCIETY OF CHEMISTRY, 2015

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2017049279 A1 20170323; AU 2016324467 A1 20180405; AU 2016324467 B2 20211202; AU 2022201238 A1 20220324; AU 2022201238 B2 20240418; CA 2998812 A1 20170323; CN 109416312 A 20190301; CN 109416312 B 20221111; CN 115655825 A 20230131; EP 3350569 A1 20180725; EP 3350569 A4 20190911; EP 3350569 B1 20230719; EP 4252898 A2 20231004; EP 4252898 A3 20231129; US 10900896 B2 20210126; US 2018266951 A1 20180920

DOCDB simple family (application)

US 2016052463 W 20160919; AU 2016324467 A 20160919; AU 2022201238 A 20220223; CA 2998812 A 20160919; CN 201680065875 A 20160919; CN 202211309678 A 20160919; EP 16847534 A 20160919; EP 23185865 A 20160919; US 201615761109 A 20160919